

*News and Views... *

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## INDUSTRY NEWS



### WHO Chief Hails Modi's Assurance on Using India's Vaccine Production Prowess for Global Good

World Health Organization (WHO) chief Tedros Adhanom Ghebreyesus has lauded Prime Minister Narendra Modi's assurance that India will use its vaccine production capacity in helping nations fight Covid-19, saying the pandemic can be defeated only by mobilising resources for common good.

In his address to the 75th session of the UN General Assembly on Saturday, Modi said that "as the largest vaccine producing country of the world, I want to give one more assurance to the global community today. India's vaccine production and delivery capacity will be used to help all humanity in fighting this crisis."

He said that even during these very difficult times of the raging pandemic, the pharmaceutical industry of India has sent essential medicines to more than 150 countries.

"Thank you for your commitment to solidarity, Prime Minister @narendramodi. Only together, by mobilising our forces and

resources jointly for the common good, can we end the #COVID-19 pandemic," WHO Director-General Ghebreyesus said in a tweet. Modi told the 193-member UN General Assembly that in India and the neighbourhood, "we are moving ahead with phase 3 clinical trials in India". Modi further assured that India will also help all the countries in enhancing their cold chain and storage capacities for the delivery of the vaccines.

He, however, questioned the response of the United Nations in combating the pandemic that has so far infected over 32 million people in the world and will soon reach the grim milestone of a million deaths. "Over the last 8 to 9 months, the whole world has been battling the pandemic of the Coronavirus. Where is the United Nations in this joint fight against the pandemic? Where is its effective response?" Modi said.

Melissa Fleming, Under-Secretary-General for Global Communications at the United Nations, said Modi's assurance is welcome news because UN Secretary-General Antonio Guterres had told the General Assembly in his address last week that "vaccinationalism" is not only unfair but self-defeating.

With the COVID-19 pandemic soon reaching the grim milestone of a million deaths, Guterres had chided those countries who are making "side deals" to have a Covid-19 vaccine exclusively for their own populations. "Such 'vaccinationalism' is not only unfair, it is self-defeating. None of us is safe, until all of us are safe. Likewise, economies cannot run with a runaway pandemic," Guterres had said.

- News18 India

### Coronavirus LIVE Updates: Proud Moment, Says Serum Institute CEO Adar Poonawalla on PM's Vaccine Assurance to the World

India's Covid-19 caseload neared 60 lakh with 88,600 fresh infections being reported on Sunday, while the number of people having recuperated from the disease crossed 49 lakh pushing the national recovery rate to 82.46 per cent, according to the Union Health Ministry. The total coronavirus cases mounted to 59,92,532, while the death toll climbed to 94,503 with 1,124 people succumbing to the disease in a span of 24 hours, data updated at 8 am showed. Gujarat Chief Minister Vijay Rupani has issued orders that the state government will not organise 'Navratri Mahotsav' this year in view of the Covid-19 pandemic. BJP leader Uma Bharti, meanwhile, became the latest political leader to positive for Covid-19 following mild fever for three days. On Twitter, Bharti asked those who came in contact with her in recent days to get tested as well.

The total recoveries have surged to 49,41,627, and there are 9,56,402 active cases of coronavirus infection in the country which comprises 15.96 per cent of the total caseload, the data stated. The COVID-19 case fatality rate was recorded at 1.58 per cent.

- News18 India



## Here's a status update on 10 Covid-19 vaccines that are ahead of the pack

It is arguably the most awaited and widely tracked breakthrough in medicine in modern times. With known global coronavirus cases topping 32 million on September 25, a vaccine for the highly contagious viral infection cannot come sooner. Several Covid-19 vaccine candidates have entered late-stage clinical trials and some are getting ready—the possibility of an effective vaccine in the new year is beginning to look more real.

Around a million people have lost their lives to the outbreak that started in China's Wuhan in late 2019. India is the second-worst hit country, with 92,290 deaths and more than 5.8 million reported infections. For the last several days, India has been reporting the most cases anywhere in the world, with the outbreak showing no signs of abating. India, along with the WHO and the US, has said a vaccine with more than 50 percent efficacy will be acceptable. It means the vaccine has to be at least 50 percent more effective than a placebo to be considered for approval. Officials in the US say that at least 150 COVID-19 infections must be recorded among trial participants, with at least twice as many occurring among the

placebo group.

Here is the lowdown on some of the leading vaccine candidates:

### **Moderna: mRNA-1273**

Moderna had developed a Covid vaccine based on genetic material or mRNA that instructs human cells to make SARS-CoV2 antigen, eliciting an immune response that had a clear head start over rivals.

#### **Status update**

The company initiated phase-3, or late-stage, clinical trials on July 27. In Phase-3, the vaccine is being tested on 30,000 participants. As of last week, it had enrolled about 25,000 participants. Moderna's first interim analysis will come after 53 trial subjects become infected. The company plans to seek emergency authorisation for high-risk groups if the vaccine proves effective. The approval is expected in the first half of CY2021 but the possibility of an early approval can't be ruled out.

India availability -Not known.

### **Pfizer-BioNTech: BNT162b2**

Pfizer and German firm BioNTech have developed a Covid vaccine candidate based on genetic material or mRNA that instructs human cells to make SARS-CoV2 antigen, eliciting an immune response. Though they had a late start, the two companies have covered a lot of ground and could create history by being the first vaccine to get US approval.

#### **Status update**

They initiated Phase-2/3 or clinical trials on July 27. The vaccine is being tested on 30,000 participants in the US and countries like Argentina Brazil, and Germany. On September 12, Pfizer and BioNTech announced they would seek to expand their US trial to 43,000 participants. Pfizer's first interim analysis will

come after 32 coronavirus trial subjects become infected. By the endof October, it will come to know whether the vaccine works, the company has said. It plans to seek emergency authorisation for high-risk groups if the vaccine proves effective. The approval is expected in the first half of CY2021, but there is a strong possibility of it coming in before the end of 2020.

India availability - Not known

### **AstraZeneca-University of Oxford: AZD1222**

The British-Swedish pharma major AstraZeneca and the University of Oxford are developing a Covid-19 vaccine based on a chimpanzee adenovirus called ChAdOx1 as vector that has been modified to carrycoronavirus genes and deliver them into human cells. The vaccine had a headstart, with phase-1 initiated in April. Interim data was published in July.

#### **Status update**

Phase-2/3 clinical trials were initiated in May. The vaccine is being tested on more than 12,000 volunteers in the UK and another 5,000 participants in Brazil and South Africa. In India, Serum Institute of India is testing it on 1,700 participants. The company is enrolling 30,000 participants in the US for phase-3. The trial was paused in the first week of September due to an adverse reaction in a volunteer who developed brain inflammation. The trial resumed in all other countries except the US. AstraZeneca said its first interim analysis will come after 75 coronavirus trial subjects become infected. This will give a fair idea of the effectiveness of the vaccine. The data is expected by the Q4CY20. The approval is expected in the first half of 2021.

India availability - The vaccine would be distributed through Serum Institute of India.

### **Johnson & Johnson: JNJ-78436735**

Johnson & Johnson developed Covid-19 experimental vaccine based on adenovirus vector Ad26. The company has used the same viral platform to develop vaccines for Ebola and other viruses such as Zika, RSV and HIV. What sets it apart is that it is a one-dose vaccine compared to two for other vaccine candidates and doesn't need to be frozen for distribution, which will make transportation easy and save costs.

#### **Status update**

Johnson & Johnson became the fourth company to initiate a global phase-3 trial. It took just three months for the company to move from phase 1/2 to a late-stage trial. The company plans to enrol up to 60,000 volunteers across three continents and will study the safety and efficacy of a single vaccine dose versus placebo in preventing COVID-19. If proven to be safe and effective, the first batch of the vaccine should be available for emergency use in early 2021.

**India availability** - The vaccine would be distributed through J&J partner Biological E.

### **Novavax: NVX-CoV2373**

Novavax has spent three decades and burnt \$1.5 billion trying to develop vaccines based on its recombinant nanoparticle technology and Matrix adjuvant platform without much success. It's hoping Covid-19 will turn the tide. Novavax vaccine is a protein sub-unit vaccine that uses part of the virus and combines with adjuvant, or booster, to deliver it as a vaccine. The vaccine doesn't need to be frozen for distribution, making it much easier to handle.

#### **Status update**

Novavax initiated phase-3 trial on September 24 in the UK. The trial is being conducted in partnership with the UK government's Vaccines Taskforce, and is expected to enroll up to 10,000 individuals between

18-84 years of age over the next four to six weeks. The company expects to roll out the vaccine by mid-2021. In September, Novavax reached an agreement with the Serum Institute of India to produce as many as 2 billion doses a year. The vaccine has to be given in two doses.

**India availability** - Vaccine would be manufactured and distributed by its partner Serum Institute of India

#### **Sputnik vaccine**

Sputnik V, the Covid-19 vaccine developed by Moscow's Gamaleya Institute, the Russian Defence Ministry and the sovereign Russian Direct Investment Fund, became the first vaccine to be cleared for public use even before being tested for safety and efficacy. The vaccine is based on a modified human adenovirus as vector, which carries the protein of the SARS-CoV-2 virus. On September 16, RDIF reached an agreement with Dr Reddy's to conduct clinical trials and distribute 100 million doses of vaccine in India.

#### **Status update**

The results of Sputnik V of Phase 1/2 clinical trials on 76 people were published in *The Lancet* early September, showing that the vaccine candidate triggered a strong immune response. Russia is enrolling 40,000 volunteers as part of phase-3, starting September. The trial will take six months to complete. Media reports suggest that the vaccine is available for public in Russia but the vaccine may not be available in other countries at least until the first half of CY21. The vaccine has to be given in two doses.

**India availability**: Vaccine would be distributed through Dr Reddy's.

### **Bharat Biotech: Covaxin**

Bharat Biotech is developing a Covid vaccine in

collaboration with the Indian Council of Medical Research (ICMR). ICMR's National Institute of Virology (NIV) had transferred the SARS-CoV-2 virus strain. Bharat Biotech has developed an inactivated vaccine based on the strain. The vaccine has been found to have elicited immune response in monkeys.

#### **Status update**

Bharat Biotech initiated Phase-1 and 2 trials in July. The company plans to launch Covaxin Phase -3 trials in October, where it will test the vaccine on about 25,000-30,000 volunteers in India and other countries. The vaccine is unlikely to be launched until the first half of 2021. Bharat Biotech is making the vaccine at risk. Currently, it has capacity to manufacture 100-200 million doses at two of its Biosafety Level (BSL) -3 facilities in Hyderabad. It is trying to rope in partners who can increase the capacity to 1 billion doses per annum. The vaccine has to be given in two doses.

**India availability** - The vaccine will be distributed by Bharat Biotech

### **Zydus Cadila: ZyCoV-D**

Zydus Cadila has taken a novel approach to its potential Covid-19 vaccine. Called plasmid DNA, the vaccine consists of genetic material of SARS-CoV-2 proteins that instructs human cells to make SARS-CoV2 antigen, eliciting an immune response. The company says that this approach is easily replicable and scalable, requiring just Biosafety Level (BSL)-1.

#### **Status update**

Zydus Cadila initiated Phase-1 and 2 trials in July. The company plans to test the ZyCoV-D vaccine on about 15,000-20,000 people in Phase-3. The launch of the vaccine is expected in the first half of 2021.

**India availability** - Vaccine would be distributed by Zydus Cadila

## **Sanofi-GSK**

Sanofi-GSK Covid vaccine lags behind but given that the vaccine comes from Sanofi, which has a huge manufacturing and distribution presence in India, its progress will be closely watched. The vaccine is based on a protein subunit, with adjuvant (booster) provided by GSK.

### **Status update**

The companies said the pre-clinical studies showed promise regarding safety and immunogenicity of the vaccine. On September 3, Sanofi and GSK announced the initiation of Phase 1/2 clinical trials. Over 400 participants are enrolled for Phase 1/2 study. Pending positive Phase 1/2 data, companies aim to move into Phase 3 by the end of 2020. Sanofi and GSK are scaling up manufacturing of the antigen and adjuvant with the target of producing up to one billion doses in 2021. The vaccine is likely to be available in the second half of CY21.

**India availability -** The vaccine could be available to India through Covax.

### **Cansino**

The Chinese vaccine candidate based on human adenovirus Ad5 vector developed by CanSino Biologics and Beijing Institute of Biotechnology and Academy of Military Medical Science has become a major tool for China's vaccine diplomacy. The vaccine has been approved by the Chinese military on June 25 for a year as a "specially needed drug".

### **Status update**

Cansino vaccine entered phase-3 in August with plans to enrol 40,000 participants. China has got approvals in Russia, Pakistan, Saudi Arabia, for conducting phase-3 trials. Possible launch in second half of CY21.

**India availability -** Not known

## **Covid-19: India inching closer to 1% death rate**

India's positivity rate of coronavirus disease (Covid-19) may have been hovering around 8% for a while now, but the death rate has been declining gradually, highlighting the fact that India is losing fewer people to the viral disease as compared to most of the developed countries in the world. India's case fatality rate (CFR), the proportion of people who have died among the confirmed cases, at 1.5% is nearly half of the global average of 3.2%. The Centre is aiming at bringing down the CFR to 1% or below.

Government mortality analysis data shows that men are far more likely to die from Covid-19 in India than women, with the former accounting for 69% of all fatalities, which is in line with the global scenario and based on the evidence currently available.

The analysis of mortality data by the Union health ministry also shows that a majority of deaths were among those above 50 years of age. It showed that 1% of those who succumbed to the viral infection were below 17 years; another 1% between 18 and 25 years; 11% deaths among 26- and 44-year-olds; and 36% among people in the 45 to 60 years age group.

People with comorbidities and elderly are at high risk, as almost 70% of those who die have one or more comorbidities such as hypertension, diabetes, cardiac, renal or liver disease. The data collated by government's integrated disease surveillance programme based on the information received from various hospitals across the country shows that

about 77% of those hospitalised had some form of underlying medical condition. Many of those who succumbed to disease had been suffering from more than one condition. Hypertension and diabetes are the most common comorbidities found in these patients, with 5.63% and 5.10% hospitalised patients suffering from it respectively. Liver disease is a close third with at least 1.82% of the patients being diagnosed with it.

The other common health conditions included heart disease, asthma, chronic renal disease, chronic obstructive pulmonary disease (COPD), low immunity, malignancy, bronchitis and chronic neuromuscular disease.

**- Hindustan Times**



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## INDUSTRY UPDATES



### Cut import dependence for special grade steel by boosting local capacity: Government to industry

The government on Thursday stressed the need to cut import dependence for special grade steel, exhorting the domestic players to go for research and development activities and take required measures to make India self-reliant in value-added steel production.

Union Minister of State for Steel Faggan Singh Kulaste, while speaking at a Ficci event, said though the country is the second largest producer of crude steel in the world, it is purely dependent on imports for special grade steel. Value added steel or special grade steel is used in segments like power, ship, rail, metro, defence, auto etc.

Kulaste asked steel makers to identify those grades of steel which are not manufactured in the country and are widely used and develop them in India.

He said the industry players can conduct

research and development (R&D) activities, go for transfer of technology or form Joint Venture to set up special grade steel plants in the country.

This will help India become 'Aatmanirbhar' in value-added steel and save huge forex outgo besides generating employment opportunities, the minister said at the conference on 'FICCI-Manufacturing Value Added Steel - Contribution Towards Vocal for Local & Aatmanirbhar Bharat'.

"India is the second largest producer of steel in the entire world, yet it is fully dependent on imports for special grade steel. Let's have a look at the import dependence of 2019-20. In the year import of 6.778 million tonne took place and India exported 8.356 MT... In monetary terms, import of Rs 44,683 crore happened while export was (lower) at Rs 36,726 crore," he said.

The figures, he said, clearly show that even as the export exceeds import, the value of imported special grade remains higher. The country needs to increase the volume keeping the prices in mind.

The government has also prepared a draft framework policy for development of steel clusters in the country that will help to increase production of value-added steel and generate employment.

The draft framework policy aims at facilitating setting up of greenfield steel clusters along with development and expansion of existing steel clusters.

*- The Economic Times*

### CAMWorks Announces Partnership with CIMTechnology

HCL Technologies (HCL) recently announced a CAMWorks partnership with CIMTechnology LLC, a leading provider of Wire EDM (Electrical Discharge Machining) software.

As part of the agreement, CIMTechnology's Wire EDM programming software will be exclusive to CAMWorks. This will provide CAMWorks users access to more advanced Wire EDM programming functionality for precise and intricate part cutting. The partnership with CAMWorks and CIMTechnology will allow customers of both companies access to a culmination of technology and a wider range of CNC programming options.

CIMTechnology have specialized in Wire EDM for more than 30 years. Its Wire EDM technology was previously sold through OEM partners as stand-alone systems or as technology added to current programming systems. In the 1990s, CIMTechnology established its business by writing and selling the Impact CAD/CAM System for Wire EDM through Sodick, as well as developing Brother's PC-based conversational programming system for their drilling and tapping centers.

CAMWorks products include a range of milling and lathe solutions, in addition to Wire EDM. Technologies such as feature-based programming, knowledge-based machining and TechDB allow users to automate their CAD/CAM functions. CAMWorks is also fully integrated with SOLIDWORKS, which means that users can work within the familiar user interface of SOLIDWORKS as they program the CNC code for their parts.

*- Modern Manufacturing India*



## India's crude steel output falls over four percent to 8.48 million tonnes in August: World Steel

India's crude steel production fell over 4 per cent to 8.478 million tonnes (MT) in August 2020, according to the World Steel Association (worldsteel). The country had produced 8.869 MT of crude steel during the same month last year, the global industry body said in its latest report. However, global steel output has started showing a positive trend, the data showed. "World crude steel production for 64 countries reporting to the worldsteel was 156.244 MT in August 2020, registering a rise of 0.6 per cent compared to August 2019," the worldsteel said.

"Due to the ongoing difficulties presented by the COVID-19 pandemic, many of this month's figures are estimates that may be revised with next month's production update," it added.

Global steel production was at 155.374 MT in August 2019.

China registered a 8.4 per cent year-on-year growth in steel output at 94.845 MT during August 2020 as compared to 87.499 MT in August 2019. The US produced 5.588 MT of crude steel in August 2020, registering a fall of

24.4 per cent as compared to 7.396 MT output in August 2019.

Japan produced 6.446 MT of crude steel in August 2020, down 20.6 per cent from 8.120 MT a year ago. South Korea's steel production for the month stood at 5.800 MT, down 1.8 per cent as compared to 5.905 MT in August 2019, the data showed. Germany produced 2.830 MT of crude steel in August 2020, down 13.4 per cent from August 2019, while Italy produced 0.939 MT of crude steel in the month, up 9.7 per cent from a year ago.

France produced 0.722 MT of crude steel in August 2020, down 31.2 per cent over August 2019. Spain's steel production for August 2020 stood at 0.696 MT, down 32.5 per cent year-on-year.

"Brazil produced 2.7 MT of crude steel in August 2020, up by 6.5 per cent from August 2019. Turkey's crude steel production for August 2020 was at 3.2 MT, up 22.9 per cent from August 2019," worldsteel said.

— *The Economic Times*

## ArcelorMittal In Talks To Merge US Assets With Cleveland-Cliffs

ArcelorMittal SA, the world's largest steelmaker, is exploring a deal to merge its U.S. operations with Cleveland-Cliffs Inc, the largest U.S. producer of iron ore pellets, people familiar with the matter said on Sunday.

The combination would signal a new push among steelmakers to consolidate and diversify their business, making it less vulnerable to swings in demand. It would come after Cleveland-Cliffs acquired AK Steel, a U.S. maker of flat-rolled carbon steels, including stainless steel, for \$3 billion, including debt, last March.

The latest deal could result in the merger of U.S. assets of Luxembourg-based ArcelorMittal that are worth between \$2 billion and \$3 billion with Cleveland-Cliffs, one of the sources said. It would be transformative for Cleveland-Cliffs, which has a market value of \$2.3 billion and had total long-term debt as of the end of June of \$4.5 billion.

There is no certainty the negotiations will lead to a deal, the sources said. If, however, the talks prove successful, a deal could be announced in the coming days, one of the sources added.

The sources requested anonymity because the matter is confidential. ArcelorMittal and Cleveland-Cliffs did not immediately respond to requests for comment.

ArcelorMittal's U.S. business has more than 18,000 employees and 25 facilities, including mines, steelmaking facilities and finishing operations, according to the company's website. Headquartered in Cleveland, Cleveland-Cliffs employs about 11,000 people across mining and steel manufacturing operations in the United States and Canada.

ArcelorMittal said last year it was aiming to offload \$2 billion of assets by the middle of 2021 to reduce its debt. In December, it agreed to sell a 50% stake in its shipping business, and has also sold its stake in Brazilian steelmaker Gerdau. After it acquired AK Steel, which derived 66% of its revenue in 2019 from the automotive market, Cleveland-Cliffs experienced a drop in demand from its car manufacturing clients, which were forced to temporarily halt production earlier this year because of the COVID-19 pandemic.

— *Metal Junction*



## Sandvik and BEAMIT Progress in Additive Manufacturing

Sandvik acquired a significant stake in BEAMIT Group, and recently both took another important step forward with the latter acquiring 100% of ZARE. This brings together the two leading Additive Manufacturing (AM) service bureaus in Europe, to create one of the largest AM service providers to support the most demanding industries worldwide.

Sandvik with the right to further increase its stake in BEAMIT over time, have made several important advances together in metal AM over the last six months. BEAMIT is a

supplier of advanced metal AM-components to demanding industries, with many significant quality certifications, including AS9100 for aerospace and heat treatments' NADCAP approval. The business complements Sandvik's AM offering, which includes the broadest range of metal powders for AM and leading expertise around the entire AM value chain. Established in 1963, ZARE has steadily become a leading, integrated additive manufacturing service bureau, focusing on high-end components. BEAMIT and ZARE will continue to operate under their respective brand names, but activities will be consolidated under the BEAMIT Group. The merger between the two companies hires more than 100 people based at five facilities, all located within a 40 km area between Parma and Reggio Emilia in Italy. The new Group also has four commercial offices in France, Germany, the UK, and Japan. In combination, the service offers a variety of products, various AM process technologies, post-processing methods, and critical quality certifications in line with demanding industries like aerospace, defense, and energy.

"The AM sector is developing fast and there is a need for AM-specialist partners with the advanced skills and resources required to help industrial customers develop and launch their AM programs. The new AM-constellation consisting of Sandvik and the BEAMIT Group is extremely strong – and will provide our customers with the opportunity to access the complementary

and combined power of several leading players, covering the entire AM value chain," explained Kristian Egeberg, President, Sandvik Additive Manufacturing.

"The extended organization, including ZARE and PRES-X, is created to serve our customers with a true 360-degree service span. It also contributes with greater capacity and financial strength, while securing total reliability for current and new AM-customers. Adding Sandvik's world-leading materials expertise, we can really change the game together in this high-growth area," asserted Mauro Antolotti, Founder and Chairman, BEAMIT.

"We are impressed by the synergies offered by the BEAMIT Group and Sandvik. Integrated additive manufacturing, from metal powder to high-end components, is finally concrete. We are writing history," added Andrea Pasquali, General Manager, ZARE.

***– Modern Manufacturing India***



## MEDIA SPEAK

### Recovery in domestic demand a healthy sign for Indian steel industry

The domestic steel demand in India has recovered in the past three months and is back at the pre-COVID levels largely due to an increase in demand from automotive and white goods.

Though the demand for steel from the construction segment still remains low, it is also likely to recover post the monsoons. At the same time, higher regional prices and tight domestic supply due to higher export bookings by domestic steel mills have resulted in an increase in prices of Indian hot rolled coil (HRC) steel (flat steel prices have risen by 15 per cent in the past two months and are above 9 per cent above pre-COVID levels i.e., March 2020).

As per a report by Motilal Oswal, with higher steel prices and lower coking coal prices, margins of primary steel producers in India remain strong and there are signs of domestic steel demand recovering gradually in the country. The report also highlights that India's finished steel consumption is recovering gradually, after witnessing 85 per cent YoY (Year on Year) decline in April 2020. At the same time domestic consumption has been improving gradually, supported by the unlocking of the economy post the lockdown in March and April.

The report also points out that domestic steel production has also been on the rise due to improved capacity utilization. The crude steel production has also been improving in line with domestic demand, following 64 per cent YoY decline to 3.1 metric tonne in April 2020. It improved by 5 per cent MoM to 8.5mt in August 2020 and was down just 4 per cent YoY, supported by higher exports.

Interestingly, India turned to a net exporter of

steel during April-August with net exports of 4.0mt vs net imports of 0.9mt in same period last year. However, with improving domestic demand and higher steel prices, domestic producers have lowered exports. It is expected that there may be a dip in steel exports in the coming months. Though domestic steel prices went down in June 2020, they have recovered due to multiple factors such as a recovery in the domestic steel demand, higher exports leading to low inventory buildup, restocking of demand at the dealers end and improving regional steel prices. It is expected that a rise in domestic consumption will help all the major steel players in the country, though the JSW Steel's volume was impacted by lower domestic demand in the 1QFY21 and the spread of COVID-19 at its Vijayanagar plant in Karnataka, which affected production recovery in the auto segment demand bodes well for the company as it contributes around 15 per cent to its volumes in a normalised scenario. Similarly TATA Steel's India margins is expected to be strong in the near term. Robust integrated domestic operations with captive iron ore availability is expected to be positive for TATA Steel.

On the other hand, it is expected that SAIL's margins will improve, supported by better realization. Motilal Oswal estimates that volumes are also expected to grow further supported by ramp up in under utilised capacities. Besides that improved pricing, lower coking coal costs, and better operating leverage is expected to help this steel major. It is expected that the SAIL margins will be better in the second half of FY21 on the back of improved pricing and operating leverage benefits. As per a report by CRISIL sometime back, India had turned net exporter of steel to China for the first time in several years, with 69 per cent of semi-finished steel and 28 per cent of finished steel heading there between April and August 2020. The CRISIL

report stated that exports helped large and primary steel makers through the lockdown months, with 60-80 per cent of their total production between April and August finding its way to various destinations, with China leading. At the same time the crude steel production had fallen to a lower 27 per cent on-year despite a massive 38 per cent fall in domestic demand from April to August 2020.

As per Brickwork Ratings, ever since the lockdown was lifted from July 2020 onwards, steel mills have increased steel prices by around 90 \$ per tonne in the past three months. A further price hike is possible as domestic prices are still cheaper by around 7-8 per cent, compared with imported steel prices.

"The steel ministry has proposed incentives of around Rs 3,345 crore to boost the domestic production of various grades of steel that are largely imported to meet the local shortfall.

While few sectors, such as automotive and domestic appliances, are showing encouraging signs of demand revival, going forward, infrastructure, construction, and real estate will play a crucial role in further driving demand. Larger steel players have made good progress on the digital front with technologies such as the digital twin of a blast furnace for the optimisation of operations in real time; smaller units are still lagging behind and need to adopt digitization as a key driver for sustainable growth," Bal Krishna Piparaiya, Senior Director- Ratings, Brickwork Ratings told THE WEEK.

- THE WEEK



## Steel/Metal Industry: Link between Raw Material Costs, Steel Prices, and Share Prices Weakens

Although the global steel industry is recovering (mainly in China), improvement in other regions is slow, and the link between raw material costs, steel prices, and sector share prices has weakened. We believe that the steel industry will be able to expand in earnest once stimulation of the economy is no longer necessary and central banks become less focused on liquidity expansion. With the shares of major players trading at P/Bs of 0.2~0.4x, a buying strategy should prove effective over the long term.

**Link between raw material costs, steel prices, and sector share prices weakens**

Having escaped the shock of Covid-19, the global steel market is seeing a gradual recovery focused on China. We expect earnings at leading domestic steelmaker POSCO (005490.KS) to improve in 3Q20 following a bottom in 2Q20, backed by both sales volume improvement (driven by a recovery in downstream industry demand following operational restarts) and active product price expansion to reflect raw material price growth.

However, a sharp rise in iron ore prices is to raise cost burden in 4Q20. Amid a steel market recovery led by China, recent steel price hikes have been insufficient to offset iron ore price expansion. In addition, the degree to which Chinese steel price growth is pushing up international steel prices looks weak. It seems that the relationship between steel prices and steel company share prices has deteriorated. In other words, the chain from iron ore price growth → steel price hikes → share price expansion (reflecting expectations for stronger profits at steel firms) is not holding up. Against this

backdrop, we maintain a Neutral rating on the steel/metal industry. Full-scale steel industry expansion possible once economic stimulus no longer required

We believe that the worst phase for the domestic steel market was witnessed in 2Q20, when sales fell sharply due to Covid-19. It is positive, in our view, that steel sales are now rebounding, backed by stimulus measures and manufacturing restarts. Nevertheless, the global economy is still dependent on stimulus, and uncertainties remain regarding economic recovery, including such factors as the US presidential election and US-China relations.

In the past, full-scale steel industry expansion was achieved at times when central banks were considering such options as base rate hikes. With inflation popping up along the way, raw material and steel prices rose in tandem, driven by demand-side factors. With the shares of leading domestic steelmakers POSCO (005490.KS) and Hyundai Steel (004020.KS) trading at P/Bs of 0.2~0.4x, a buying strategy based on expectations for a long-term economic recovery cycle should prove effective.

*– Metal Junction*



## Post-Covid world will witness a greater role of smart pumps

The ability for smart valves and pumps to improve process performance, condition monitoring and maintenance effectiveness is substantial. It is obvious that advanced diagnostics and bidirectional communications can also improve environmental compliance and plant safety. It's nobody's guess that in the post-Covid world, this trend will accelerate, as maintenance managers in manufacturing plants may have to operate under lockdown pressures and service engineers will obviously witness difficulties in visiting client premises.

Incidentally, although end users in the process industries began to digitise their plants decades ago with the introduction of "smart/intelligent", digitally integrated process transmitters and final control devices, pumps and valves have often been last in the queue.

As far as the processing industries are concerned e.g. chemical processing, food and beverage, water, wastewater, oil and gas, mining, building services, pulp and paper—pumps are found everywhere. The pumping machines used in those industries differ widely and each requires expert handling.

Infrastructure, large buildings and various industries globally use more than 300 million electric motors. These electric motors consume about two-thirds of the industrial power consumption. Moreover, electricity is required in almost all areas of the plant to provide the driving force that either operates the equipment that produces the products or provides the services that the plant's equipment was built to perform.

Pumps are increasingly required to supply real-time operating data on the smart factory shop floor, so that their performance can be monitored and adjusted. One of the key performance

indicators is the torque: a gradual increase in pump torque may suggest increasing flow to compensate for growing leakage; a sudden increase may indicate a clogging of the pump downstream, while a sudden reduction may be due to an upstream blockage.

Another problem is how to connect torque sensors to equipment such as pumps, mixers and conveyors. It is indeed possible to wire up one machine using a delicate slip ring, but a highly automated factory may have hundreds or thousands, so the task becomes very difficult. However, an alternative approach is to use a non-contact radio frequency detector. Established maintenance plans can vary from daily monitoring to less-frequent inspections and repairs depending on the criticality and the application. Moreover, making sure that valves meet operational standards requires detailed record-keeping and right-skilled talent to oversee the repair.

To help factory operators respond to urgent issues, a company called Emerson has launched a Remote Assistance service which uses augmented reality (AR) to facilitate real-time repair. Although factory personnel can securely share their field of view through the AR software using a mobile device, enabling Emerson's valve engineers troubleshoot and solve the problem. Detailed instructions are given in the field-user's application to support installation, calibration or repair actions. Director of Emerson's digital valve services, Clint Schneider, says, "mostly, our clients are supporting critical infrastructure through the global health crisis that we're experiencing though they still encounter issues where they need outside help. With the help of this technology, we are able to continue our promise of support while protecting essential on-site staff and Emerson technicians."

In one application, a Peristaltic pump has internal

tubing that separates media from pump components and offers a sanitary method to supply the bioreactor with various fluids to grow cell cultures in the development of new medicines. In another application, Stepper motors power the pump head, compressing and releasing the pump tubing to move media into the bioreactor chamber.

In order to remove excessive heat in its open-loop, Stepper motors have been replaced with closed-loop counterparts. Excessive heat elevates the temperature of fluids being pumped into the bioreactor, which adversely affect processing times and reduce yields. Hence, by incorporating encoder feedback and servo-control firmware in Applied Motion Products' closed-loop Steppers, the current is controlled to meet torque demands precisely. This eliminate the heat problem by operating less hot and consuming less power.

The hybrid valve market size globally is expected to grow at a substantial CAGR of 6.7 per cent during 2019 to 2026. The growth can be attributed to the increasing use of 3D printers in valve manufacturing.

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the mining industry is seeking sustainable strategies to address rising risks, costs and compliances. However, the way rising volumes of mine tailings are handled can have a long-term impact on a mine's economic efficiency as well as on the surrounding environment and communities. Straining the water from this waste allows its reuse, either in the plant itself or restoration to nature.

Hence, finding the most effective solution to upgrade a pumping station can be a complex process. It is important that a balance between improved performance and minimised costs is struck which, in turn, requires experience and excellent technical abilities. But one thing is sure and that is, technically advanced pumps and valves would be playing a crucial role in industries across sectors in the days to come.

**- Engineering Review**



# NEW TECHNOLOGIES

## Lakshmi Vacuum – Vacuum Heat Treatment

LVH has world class vacuum furnaces of "versa treat" brand with latest technology from its own group LVT. Mainly concentrating to ensure consistent metallurgical results as per standards which in turn results in multi fold life of heat treated products. LVH production centres are spread across the country in order to serve the customers at their door step. LVH has well designed systems & components as in very good pumping stations, optimized heat exchangers including the quintessential quenching fan and the optimized heating chambers.

A specific characteristic of the heating system is its optimized measuring and control system. It ensures a uniform heat transmission to the work piece and into the heating chamber and thus prevents the development of undesired heat stress.

A complete documentation of the whole charge cycle is guaranteed by means of the hardware and software implemented in our systems. The cooling system is designed to obtain optimum cooling. This system makes it possible to obtain the optimum microstructure apart from required hardness throughout the cross section in various air harden able steels as well as in various intricate shapes and large-sized components to obtain the desired metallurgical properties.

With very high cooling rate at gas pressure values up to 6 bar abs. and maximum gas flow within the system ensures that uniform cooling throughout the job is obtained.



## Gita Refractories

Gita Refractories product line includes High Alumina Bricks, Magnesia Carbon Bricks, Magnesite, Mag-chrome Bricks, Chrome-Mag Bricks, Chromite Bricks, along with Monolithics consisting of Conventional, LC/ULC Castables and Ramming, Felting, Gunning and spraying mixes. Gita Refractories is a part of Gilada Group and a well known Refractory Manufacturer in South India for Bricks and Castables. We are also involved in Super Refractory Manufacturing, High Temperature Refractory, and Sustainable Refractories Manufacturing. Its head-office at Bangalore and plant in Hoskote, INDIA, Gita Refractories is capable of producing tailor-made refractories to suit specific applications of different industry verticals such as Steel, Cement, Glass, Coke Oven, Sponge Iron, Re-rolling mills, Petrochemical, Non-ferrous industries, Chemical and Incinerators etc. Since 1988, we at Gita Refractories, have been manufacturing refractory material and have seen many technology changes along the way.

We have modified many of our own services during these turnarounds. From the year 2018 onwards our determination to excel in this very field of Refractory making has enlarged and our focus area has not shifted but has become much wider and stronger than ever before, our intention is to collaborate with potential consumer base who share the same zeal and passion as our own. We have excelled at many places with our wide variety of product mix and dedicated after sales service which is good and becoming a industry standard in the days to come. Some of our products that we are keenly focusing are namely;

- High Alumina Bricks
- Magnesia Carbon Bricks
- Magnesite Bricks
- Mag-chrome Bricks
- Chrome-Mag Bricks
- LC/ULC Castables
- Ramming & Gunning
- Felting & Spraying Mixes
- Alumina Castables
- EBT & NFC

We are focused on building a dedicated team of professionals across the globe, also we are in constant process of collaborating with supply agents and traders who can market and distribute our technology to the end consumer. At Gita Refractories, we are committed to provide complete refractory solutions by delivering the "right quality & quantity" to suite our customer's processes. 30+ Years in Business, 45+ Active Clients, 95+ Products Offered, 30000 MT+ Production Capacity (PA)

# Grand Business Carnival

6 co located events and one Grand Business Carnival for Metal, Machinery and Manufacturing industries

- HTF - for Advanced Hand Tools, Power Tools and Fasteners
- CWE - for Advanced Cutting and Welding Equipment & Technology including Laser Technology
- IMEX - for Latest Machine Tools (CNC, Laser, Shot Blasting, Measuring & Testing Equipment and more.....)
- UMEX – for Economical Pre-owned machinery in the industry
- World of Metal – for Mineral, Metal, Metallurgy & Materials
- TECHINDIA - for Engineering and Manufacturing (Pumps, Valves, Compressors and more.....)



## A Sneak Preview

- Expected Presence of 500+ leading Exhibitors from 15+ countries
- 4 Open Seminars
  - >*Hand Tools, Power Tools & Fasteners Know-How*
  - >*Advancements In Cutting & Welding Equipment*
  - >*Machine Tools: Bringing Depth to Manufacturing in Industries*
  - >*Technology Innovation for Metal & Metallurgy Industries*
- Various New Launches by exhibitors.



## Business Connect Program

- Market News & Views, a weekly e news alert program covering Industry Updates ,Launch of New Technologies , Partnership Opportunities , Industry Views, CSR activities
- International Business Networking Program (IBNP) a monthly webinar covering key industry across Indian as well as some neighboring countries including China, Taiwan, Bangladesh, etc
- Open Seminars during the event, a unique opportunity to have face to face interaction with industry leader and knowledge transfer



### Contact Us



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3-5 SEPTEMBER 2021 at Bombay Exhibition Centre, Mumbai, India

# SOME LEADING COMPANIES AT THE EVENTS

## Lakshmi Vacuum



Lakshmi vacuum group, a leading vacuum heat treatment company offering heat treatment service and manufacturing vacuum Furnaces in India since 2003

This was the time vacuum heat treatment technology was mastered only by westerners and it this technology was new for India, Mr. L N Prasad, the group Managing Director a young dynamic personality, having sound knowledge and experience in vacuum heat treatment technology with right Business acumen & values has made Lakshmi vacuum group leaders in this segment in India within a decade and given the tough competition to the westerners.



## Cotmac Electronics Pvt. Ltd.



Cotmac Electronics Pvt. Ltd. is a respected name in industrial automation, providing customers with a wide range of cost effective engineering services in the fields of plant intelligence and industrial automation. As a part of the 125 year old illustrious Cotmac Group and its inception in 1992, 25 years ago, CEPL has been providing automation solutions for factory and processes. With over 500 skilled and qualified engineers, strong domain knowledge of products and processes, 5 state of the art manufacturing plants, 13 branch offices in India and 3 overseas branches in Dubai, Singapore and United States Cotmac is a truly global system integrator that supports national and international businesses. The company's knowledge and experience in factory and process automation help customers to improve productivity and scale up operations. Cotmac Offers automation solutions in various segments like

- Factory Automation -Automotive, Paper and Printing & Material Handling,
- Process Automation- F&B, chemical & pharma, cement, metal & mining, water treatment, power,
- Engineering And Software Services- detail design engineering, control software and SCADA development, process optimization services, AutoCAD engineering services and field services, Control Panels-

MCC, PCC, AMF, PLC, DRIVE, MIMIC, • Machine Retrofitment- Recondition and converting old machines to CNC'S, • Vision systems and robotics engineering- Vision systems ensure shipments are free from all defects, reduce waste through early detection of process errors, and reduce the quantity of scrapped components. robotics and intelligent material handling systems helps to optimize production to accurately match process speed and positioning,

- Industrial automation products- Cotmac is an authorised distributor partner for Siemens automation, Siemens switchgear, Lapp Kabel, Omron, Phoenix Contact, Eplan, Cognex, Siemens process Instrumentation



## Deeps Tools Pvt Ltd.



Deeps Tools Pvt. Ltd., is a recognized export house founded by Mr. Jawahar Lal Jain in 1979 with the vision of providing quality products to the valuable customers. Deeps has gradually made a mark in the worldwide market as one of the leading Hand-Tools manufacturing company in India.

We are quality manufacturers of Drop Forged hand tools of varied Type / Designs. Our predominance is marked worldwide by the Spanners/wrenches made according to International standards. We have now triumphantly developed and introduced Water Pump Pliers, Tower Pincer, Socket, Gear wrench and Bearing Puller for our customers.

Our manufacturing unit of seven drop forged hammers is backed up by ultra modern machinery/QC systems, Fully Automatic Electro Plating Plant along with a professional team with years of valued experience not only in manufacturing, but also in marketing and customer relations makes it possible to meet the increasingly demanding needs of our market.

We are an ISO 9001:2008, ISO 14001:2004 certified company which does it all, Research, Design, Engineering, Packaging and Merchandising. A range of products has been developed in environment friendly conditions to satisfy every need of clients. A strict control through every stage of our manufacturing process, such as selection of raw material, design, forging, machining and

finishing ensures the highest quality standards of our tools.

We are constantly developing new products which are designed with the most advanced technology to keep up pace with the latest market requirements.

We are grateful to all our esteem customers for their support & amiable participation through our journey. We will continue to maintain the highest standards as per their needs.

## Shanti Abrasive Synthetics Pvt. Ltd.



Shanti Abrasives are in the market for the last three decades and providing the Marble & Granite Industry with the best Abrasives available in the market. Shanti Abrasives was the first to introduce 5 Ex Chemical Bond Abrasive in India in 1990 to eliminate the final polish with Tin Oxide & Buff. Shanti Abrasive was the first to introduce Lux in India in the year 2000 to polish Granite without the use of Lead & Oxide.

## Ferretero Tools LLP



Manufacturer of "Jhalani Brand Hand Tools". The major supplier of Hand Tools in various government institutes and PSU's like

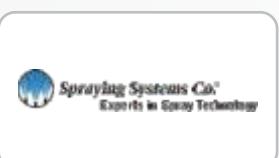
NTPC, ONGC, GAIL, SAIL, INDIAN OIL, Indian Railway, H.P.C.L., N.F.L., B.E.M.L. etc. Having a strong network of 1500+ Channel Partners and we are serving hand tools industry since 1961.

## Keshav Enterprises



We at KEIL feel immense pleasure to introduce ourselves as the Importers & Wholesale Distributors of Forestry and Garden Tools based in Delhi. We are professionals in Chainsaw machines, other forestry products like Saw Chains, Guide bars etc , and Gardening Tools like Brush Cutters , Earth Augers , Multi-purpose machines etc. Our Area of Specialisation - Gasoline Chainsaw Machines, Electric Chainsaw Machines, Saw Chains, Brush Cutters, Earth Augers, Other Gardening Machines, Spare Parts Thereof. B B Corporation Jon Bhandari Tools have a good name in quality products and value for money prices. The range of Jon Bhandari tools specialize in Marble and granite cutting blades, Hand Tools, Wood Working Tools, Drilling bits, Abrasives, and various Power Tools and Power Tools Accessories. We have good network of distributors throughout the country. We would like to establish a long term business cooperation relationship with customers from all over INDIA





...and many more



...and many more

# Thank You

## COMBATING **COVID-19**

Basic  
Protective  
Measures



USE FACE MASK



CLEAN AND DISINFECT



WASH YOUR HANDS  
FREQUENTLY



KEEP DISTANCE  
FROM OTHERS



AVOID TOUCHING  
EYES, NOSE OR MOUTH



STAY AT HOME  
WHEN YOU ARE SICK